

ceased after the clots had been scraped away with the finger, perhaps because a better surface was thus afforded for the deposit of coagula. A vein was opened in the arm and a pint of saline solution was introduced in the course of four or five minutes, using Colin's apparatus, with which any entrance of air was prevented; during the operation, the volume and tension of the pulse improved considerably. The patient's subsequent progress was favorable. The patient belonged to a family of bleeders and he had once before bled profusely after the extraction of a tooth; but this could hardly explain the present accident, for in that case there should have been bleeding from both tonsils and also from the wound made during ligation of the carotid; the hemorrhage was probably due to division of a large tonsillary artery.

HEAD AND NECK.

I. Removal of a Large Sarcoma, Causing Hemianopsia From the Occipital Lobe of the Brain. By W. R. BIRDSALL, M.D., (New York), and R. F. WEIR, M.D., (New York). This case occurred in a male Hebrew Pole, affected with cerebral symptoms extending over a period of eighteen months, consisting of left hemianopsia, which could only be accounted for by a destructive lesion in the neighborhood of the gyrus cuneus of the right occipital lobe, and locomotory disturbances, which appeared to be due to the pressure effects of a tumor on structures below the tentorium, and implied a growth of considerable size. Operation having been decided upon a U-shaped flap was raised from the skull, and a one inch trephine applied at one inch above the occipital protuberance and the same distance from the middle line—beyond the limits of both the longitudinal and lateral sinuses—and the bone removed until an oval opening $2\frac{3}{4}$ by $2\frac{1}{2}$ inches was made, exposing a dura mater of a deeper hue than normal; section of this exposed the tumor, the outlying edges and base of which could not be reached in spite of further removal of the cranium, and it was therefore incised and some of its softened, granular and fatty-looking contents forced out. Its size was now somewhat diminished and the forefinger could be passed between the cranium and tumor, and by its aid the delicate cellular attachments that held the

mass in place were felt to yield easily, and enucleation became possible and the base was finally reached; by now drawing the finger gently but firmly toward the cranial opening, the tumor was torn nearly completely in two and its outer half lifted out; then the inner part was separated from the falx with the help of the finger end and nail, and withdrawn. Inspection of the mass showed that the tumor had been entirely removed and that its probable attachment had been toward the posterior border of the falx; the tumor was a spindle-celled sarcoma weighing $5\frac{1}{4}$ ounces, measuring $3\frac{1}{4}$ inches long by $2\frac{1}{3}$ inches wide and $2\frac{1}{2}$ inches thick, and being $8\frac{1}{2}$ inches at its greater circumference and 7 inches at its lesser. The falx was crowded over toward the left beyond the median line, and the tentorium depressed to the horizontal; two bleeding points were observed, one being in the region of the straight sinus, although not free enough for that vein and probably belonging to the pedicle of the growth, while the other was apparently arterial and possibly from a terminal branch of the posterior cerebral artery. It being found that the hæmorrhage could be checked by direct pressure, the cavity was packed with 5% iodoform gauze, not too tightly, as it was assumed that the released brain would contribute additional pressure, and the ends of the strips of gauze were allowed, for easy extraction, to protrude from the lower angle of the scalp wound; the dura was partly united over the gauze by several loose sutures instead of being brought closely together, and the scalp wound closed with catgut sutures, a rubber drainage tube being introduced under the skin up to the skull opening, and over these sublimated and iodoformed peat bags with sublimated loose compresses of gauze and absorbent cotton were secured with gauze bandages and the patient put to bed. The patient soon showed symptoms of hæmorrhage which could not be controlled by further packing of the cavity, and death ensued thirteen hours after the beginning of the operation. Dr. Weir in another case would favor the application of hæmostatic forceps to the bleeding points, retaining them in place for twenty-four or forty-eight hours. He remarks that sundry experience of injuries over the lateral and longitudinal sinuses together with observations on the cadaver, have convinced him that

the skull over such a sinus can be removed without injuring it and without giving rise to any uncontrollable bleeding or subsequent risk.

Remarking upon the application to cranial surgery of *bone grafting* he stated that after trephining the skull in a case of epilepsy, he had, after closing the dural opening, replaced the two one inch disks of bone which had been removed—they having been, during the half hour intervening between their removal and reintroduction, wrapped in a towel wrung out of warm carbolic solution, which in its turn was then placed in a jar immersed in warm water. After seven weeks the wound was all healed except at a point where a later opening was made for drainage, and the circles of bone appeared to have perfectly united.—*Med. News.* April 16, 1887.

II. Considerations in Connection With a Fracture of Skull by Contre Coup. By PAUL BERGER (Paris) and MLLÉ. A. KLUMKE (Paris). This paper contains a minute discussion of a case from which the following conclusions are deduced: (1) Independent fractures of the base of the skull, produced at a distance from the point of application of external violence on the skull exist. (2) These fractures occupy by preference the orbital prominences, the lesser wings of the sphenoid, and the cribriform plate; they may also involve the petrous portion of the temporal bone. (3) They appear to result from the mechanism assigned by Perrin to fractures of the skull by *contre coup*. (4) Intracranial effusions of blood situated between the dura mater and the skull, determined by the rupture of the middle meningeal artery at the level of a fracture, may occupy the lower region of the middle fossa of the skull and be accompanied by no sign of cerebral compression, even when they attain a considerable volume. (5) Consecutive to a traumatism, a hæmorrhagic focus may be observed in the cerebral substance, produced by *contre coup* at a point opposite to that where the violence was applied, without its being possible to invoke the displacement of the cerebro-spinal fluid as the cause of its production. (6) In recent and considerable traumatisms, there may exist a clearly defined aphasia, without there being any appreciable lesion of the convolution of Broca, of the foot of this convolution, or of